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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,696	06/07/2000	Yujiro Suzuki	325772017700	8631

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MORRISON & FOERSTER LLP
1650 TYSONS BOULEVARD
SUITE 300
MCLEAN, VA 22102

EXAMINER

LEUNG, QUYEN PHAN

ART UNIT PAPER NUMBER

2828

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,696

Applicant(s)

SUZUKI, YUJIRO

Examiner

Quyen P. Leung

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/16/03 have been fully considered but they are not persuasive. Applicant made the following arguments:

- a. "Because the passivation layer covers the light emitting edge of Gasser's laser diode, Gasser's passivation layer must be light transmitting. No portion of Gasser teaches or suggests that Gasser's passivation layer may be modified to block light when the film is not irradiated."

In response to applicant's argument, Examiner contends that applicant's claimed invention does not yet structurally distinguish from that of Gasser. Applicant claims that "the thin film is configured to transmit light when the thin film is irradiated with light from said light emitting element **and to block light when the thin film is not irradiated from the light emitting element.**" As correctly pointed out by applicant, Gasser's passivation layer is light transmitting when the thin film is irradiated with light from the light emitting element. Regarding the emboldened claim language above, it is Examiner's understanding that, when the light emitting element is not irradiating light, there is zero light intensity irradiated on the thin film. With no light emitted from the light emitting element, no light will therefore be transmitted by the thin film. This meets applicant's claimed limitation that light is blocked when the thin film is not irradiated from the light emitting element.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 7-11, 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Gasser et al (5,144,634). Gasser et al discloses the claimed invention. Note figure 1 which illustrates a light emitting element (10) and the abstract for the discussion of a thin film (passivation layer) disposed on the exit surface.

It is inherent that Gasser et al teaches a thin film (see abstract for passivation layer of Sb) that is configured to

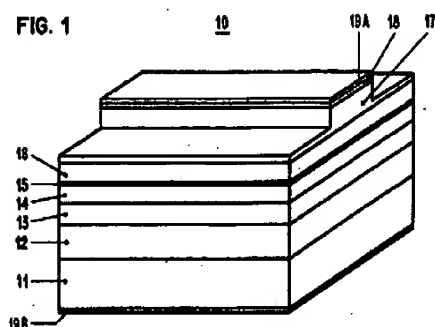
(a.) transmit light when the thin film is irradiated with light from the light emitting element and to block light when the thin film is not irradiated with light from the light emitting element and

(b.) to transmit light when the thin film is heated and to block light when the thin film is not heated,

because Gasser et al teaches the same material—Sb-- as applicant. Note applicant's specification page 12 lines 3-8 for the teaching of the Sb material. Likewise, Gasser et al teaches in its abstract, Sb as a thin film for light emitting device (10).

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FIG. 1



[57]

ABSTRACT

A method for passivating mirrors in the process of fabricating semiconductor laser diodes is disclosed. Key steps of the method are: (1) providing a contamination-free mirror facet, followed by (2) an in-situ application of a continuous, insulating (or low conductive) passivation layer. This layer is formed with material that acts as a diffusion barrier for impurities capable of reacting with the semiconductor but which does not itself react with the mirror surface. The contamination-free mirror surface is obtained by cleaving in a contamination-free environment, or by cleaving in air, followed by mirror etching, and subsequent mirror surface cleaning. The passivation layer consists of Si, Ge or Sb.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gasser et al. Gasser et al has been discussed except for inorganic materials having a melting point lower than either 350 or 150 degrees Celcius or a organic material having a "low" melting point. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ inorganic materials having a melting point lower than either 350 or 150 degrees Celcius or a organic material having a "low" melting point, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quyen P. Leung whose telephone number is (703) 308-0545. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Quyen P. Leung
Primary Examiner
Art Unit 2828

QPL